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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,206	09/24/2003	Mahesh R. Junnarkar	ITL.0995 (P16440)	2629
21906 7590 01/26/2007 TROP PRUNER & HU, PC 1616 S. VOSS ROAD, SUITE 750 HOUSTON, TX 77057-2631			EXAMINER CHIEM, DINH D	
			ART UNIT 2883	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			01/26/2007	
			DELIVERY MODE PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/669,206	Applicant(s) JUNNARKAR ET AL.	
	Examiner Erin D. Chiem	Art Unit 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

<sup>edc</sup>  
Claims 1-6, ~~9~~-16, 18-19, and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson et al. (US 2002/0102052 A1 “Thompson” hereafter).

Thompson discloses a planar waveguide dispersion compensator comprising an arrayed waveguide grating (Fig 5c) having an array of waveguides (102); and arranging a plurality of heaters (110a-g) to provide a temperature gradient across said array of waveguides (Para [0108]), said heaters extending along the length of said waveguides. The arrayed waveguide grating is formed as a planar lightwave circuit (Para [0003]) provided on a substrate (104). The heaters are formed on the opposite side of the circuit (Para [0108]) and the heaters have generally the same configuration as the waveguides (See Fig. 5c). The heaters are selectively actuatable and Thompson discloses such means via thermally adjusting the “strip lens” thus lengthening the optical path (Para [0092]-[0100]).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 17, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson in view of MacPherson et al. (US Patent 6,096,566 "MacPherson" hereafter) and (US Patent 5,612,968 "Zah" hereafter).

Thompson discloses the invention of claims 1 and 6 as applied above. However, Thompson does not disclose the fuses are laser actuatable.

MacPherson teaches an inter-conductive layer fuse for integrated circuits formed on a silicon substrate. MacPherson teaches in an embodiment of the invention is to utilize laser-configurable fuses wherein a laser beam blows selected fuses to sever the chosen electrical connections (col.2 lines 64 – col. 3. line 11). However, MacPherson lacks the teaching of the application used in optical devices.

Zah teaches a redundant multi-wavelength laser arrays wherein the optical waveguides (Fig. 2; 26), typically semiconductor waveguides on board the chip 20 (col. 4, line 24) wherein the selective wavelength is dependent on the connection and non-connection by burning a fuse.

Since Thompson, Zah, and MacPherson are all from the same field of endeavor, the purpose disclosed by Zah and MacPherson would have been recognized in the pertinent art of Thompson.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to recognize MacPherson's teaching of blowing laser fuses on semiconductor wafers and combine the with the teaching of Zah's wavelength selection by selectively connecting the transmission paths through the mean of burning or blowing a fuse and

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extrapolate the teachings to employ laser fuses to select or “actuate” the desired heater in a plurality of heaters. The motivation for employing laser fuses as a means of actuation is desirable for laser’s accuracy. The level of accuracy that laser can be provided when selectively disconnect a fuse is highly desirable in the art of micro-electronics especially when the entire circuitry is integrated on a chip such as the ones taught by Thompson, Zah, and MacPherson.

### *Response to Arguments*

Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Erin D Chiem  
Examiner  
Art Unit 2883



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